



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No:	Company	WPX ENERGY
CH075719	Well	WPX ENERGY GM 423-34
API No:	Field	GRAND VALLEY
05045193090000	County	GARFIELD
	State	COLORADO

54-65-96K GM 23-34 PAD NABORS 574	Location	SHL: 1958' FSL X 2182' FWL BHL: 1534' FSL X 2405' FEL (NMSE)	Other Services	BOND LOG TEMP
	SEC 34	TWP 65	RGE 96	

Permanent Datum	GL	Elevation	5355.5 ft
Log Measured From	KB	26 ft	Above P. D.
Drill Measured From	KELLY BUSHING		
	GL	Elevations	KB 5381.5 ft DF GL 5355.5 ft

Date	16/AUG/13
Run	ONE
Service Order	624401
Depth Driller	6587 ft
Depth Logger	6560 ft
Bottom Logged Interval	6550 ft
Top Logged Interval	3232 ft
Time Started	1030
Time Finished	1530
Operator Rig Time	5 HRS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	63 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	10 fpm
Maximum Recorded Temperature	210 degF
Reference Log	BAKER HUGHES HDIL
Reference Log Date	29/JUL/15
Equipment No.	4271
Location	FLOYD RENEAU
Recorded By	LEWIS CARTER
Witnessed By	

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Bit Size	From	To
13.5 In	0 ft	660 ft
7.75 In	660 ft	6587 ft

Size	Weight	Grade	From	To
9.825 In			0 ft	660 ft
4.5 In	11.8 lbm/ft	I-80	0 ft	6587 ft

Remarks

All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes HDIL/ZDL/CN/GR open hole log dated 2/23/2011 at the clients request.

The amount of linear shift is -14 feet.

The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

BHT = 210°F

SJ = 3518'-3542'

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8281FA	10307727	FREE
1	1	RPM	8281PA	10585555	FREE
1	1	RPM	8281EA	10303640	FREE
1	1	GR	8262XY	10485470	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	PCM	8250EA	10397894	FREE

***MAIN SECTION
PNC 3-D MODE***

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		3214.750	6573.562
PNC Porosity	Borehole Size	8.750	inch	3214.750	6573.562
PNC Porosity	Casing Size	4.500	inch	3214.750	6573.562
PNC Porosity	Gas Filled	Non Gas Filled		3214.750	6573.562
PNC Porosity	Matrix	Sandstone		3214.750	6573.562

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-15.320	FLTM
8248ED	-13.320	CCL CHV
8262XY	-10.189	GR4
8281XA	-0.662	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS
		CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS
		MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3

		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RATO23
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
		QCAL2	RGN2	RICL	RONE23	RTW023	SDA2
		SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
		STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
		CLSR	ILSR	LSR	RICLR		
8281XA	0.000	CPRS	HVC1Q0	MV	SEQ	SEQ1	AMA1
		AMB1	AME1	AMF1	AML1	BKS	CHF1
		CSS	CORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
		CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
		G1	G2	GE1S	GE2S	ISS	MCS1
		MCS1Q0	QA1	QCAL1	QM1	RATO	RATO13
		RBOR	RGN1	RICS	RIN	RONE	RPOR
		RTW0	RIN13	RONE13	RTW013	SALB	SC1
		SDA1	SDL1	SGA1	SGB1	SGBC	SGE1
		SGF1	SGFC	SGK1	SGL1	SS	SS2
		STA1	PD1S	PD2S	PD3S	MD1S	MD2S
		MD3S	DG1S	DG2S	DG3S	PD1M	PD2M
		PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
		DG3M	MVS	MA	MVM	FILV	IAM
		TA	PVM	PVS	IAS	SSTAT	QPD1
		QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
		QDG2	QDG3	QMA	QTA	QFILV	QMV
		QPV	QIA	DERR	DCNT	QPK1	QSA1
		PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC
		ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
		G2R	ISSR	SSR	SS2R	RATOR	RATO13R
		RBORR	RICSR	RINR	RIN13R	RONER	RPORR
		RTWOR					
SYSTEM	0.000	TEN	TTEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

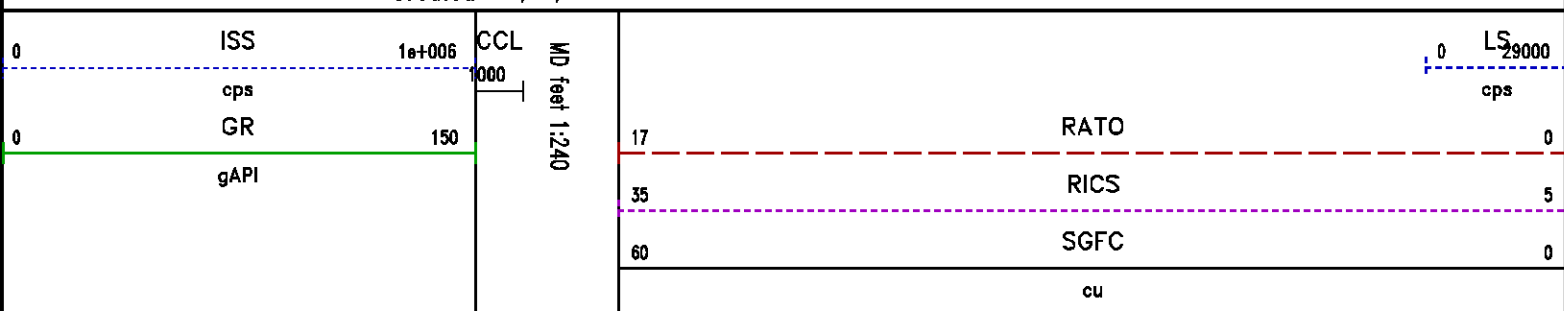
Well : WPX ENERGY GM 423-34

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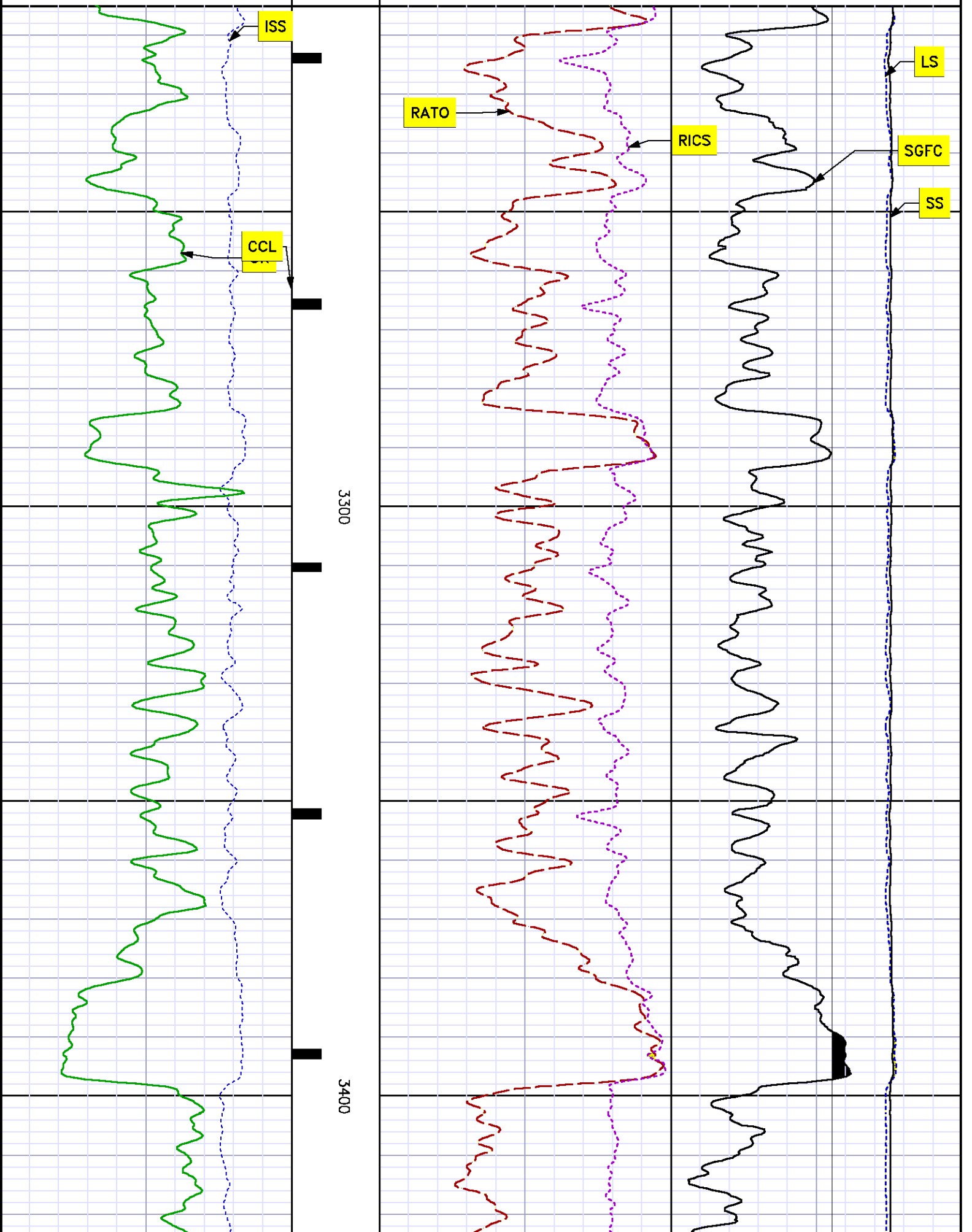
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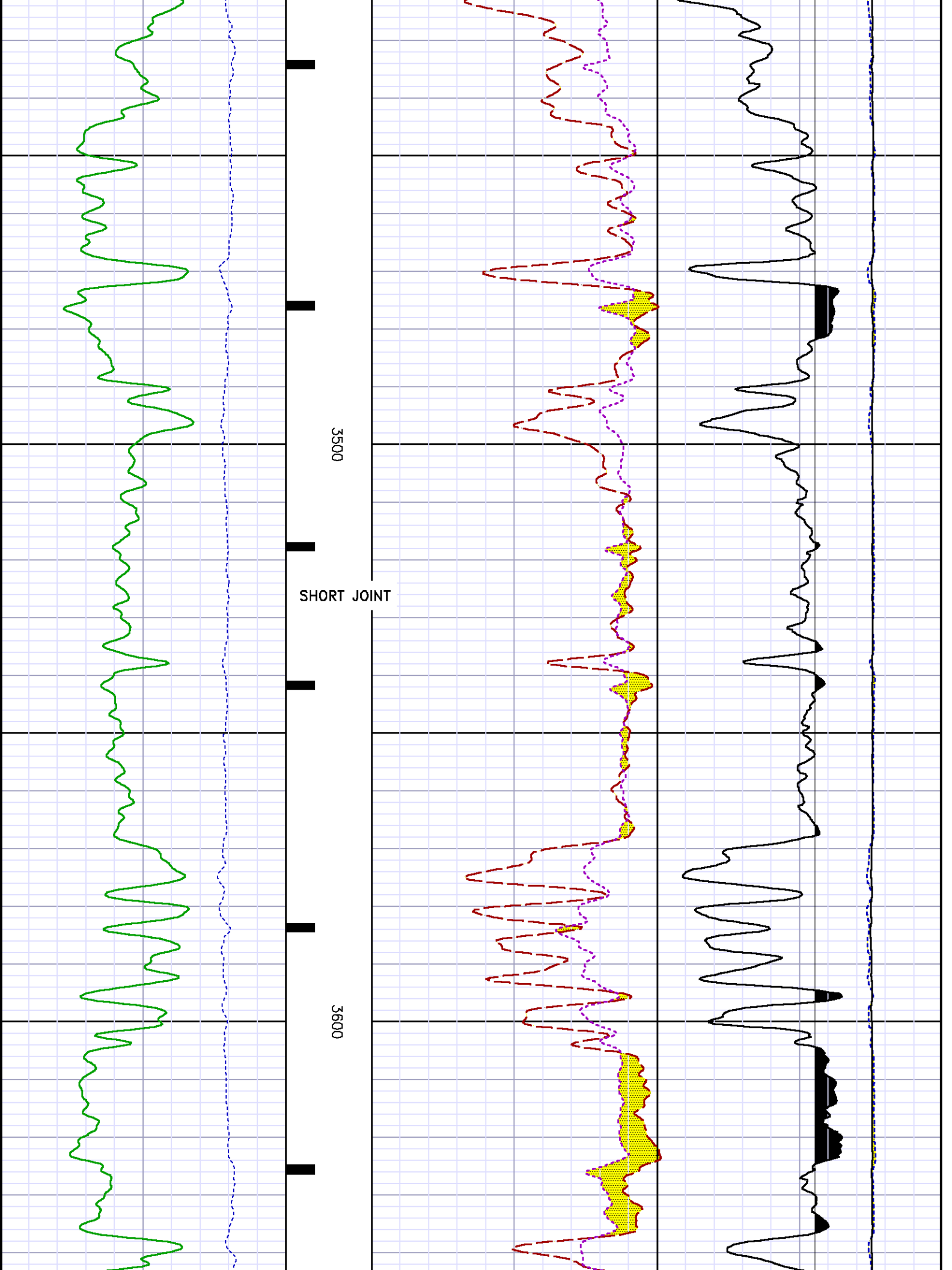
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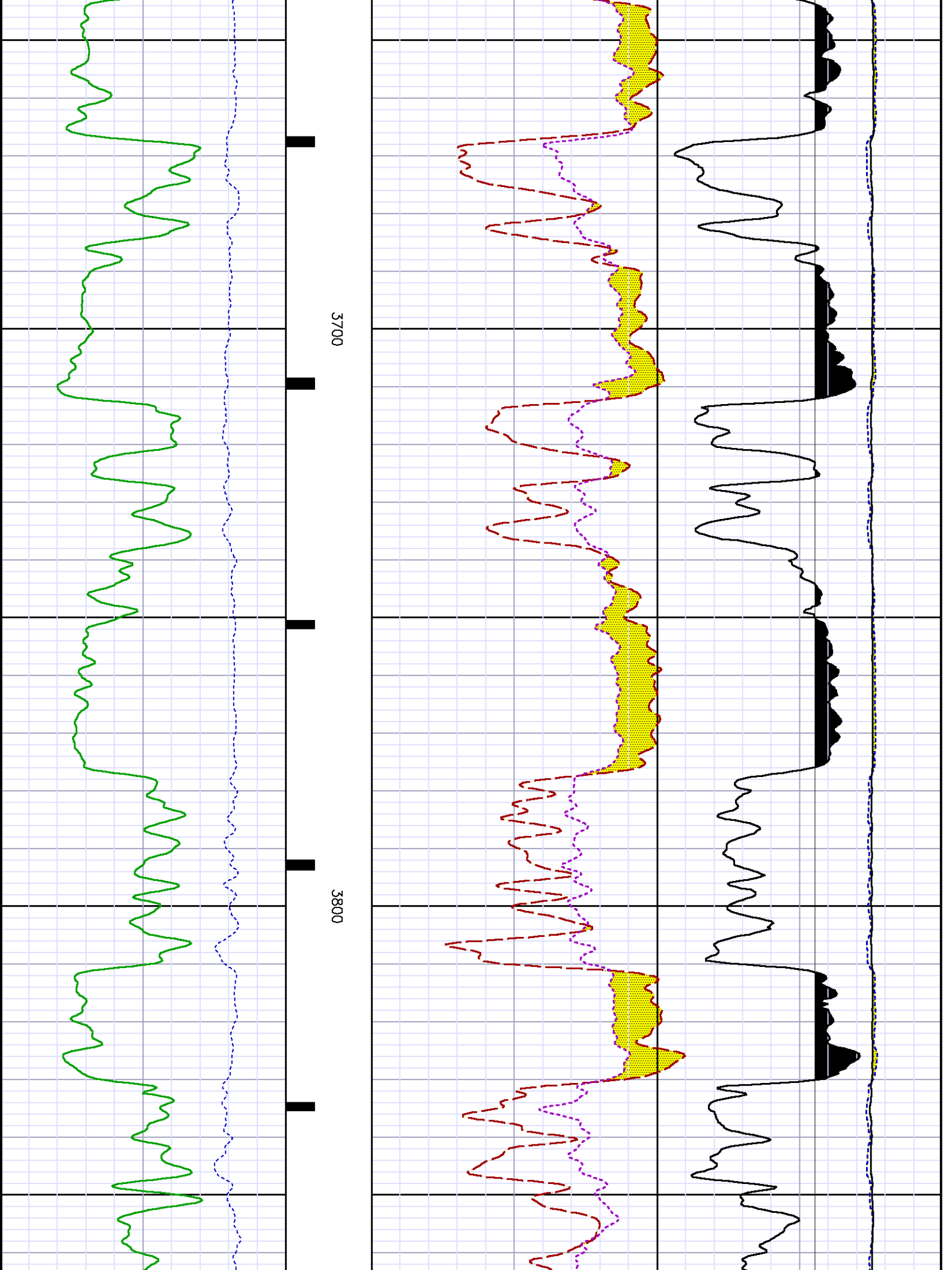
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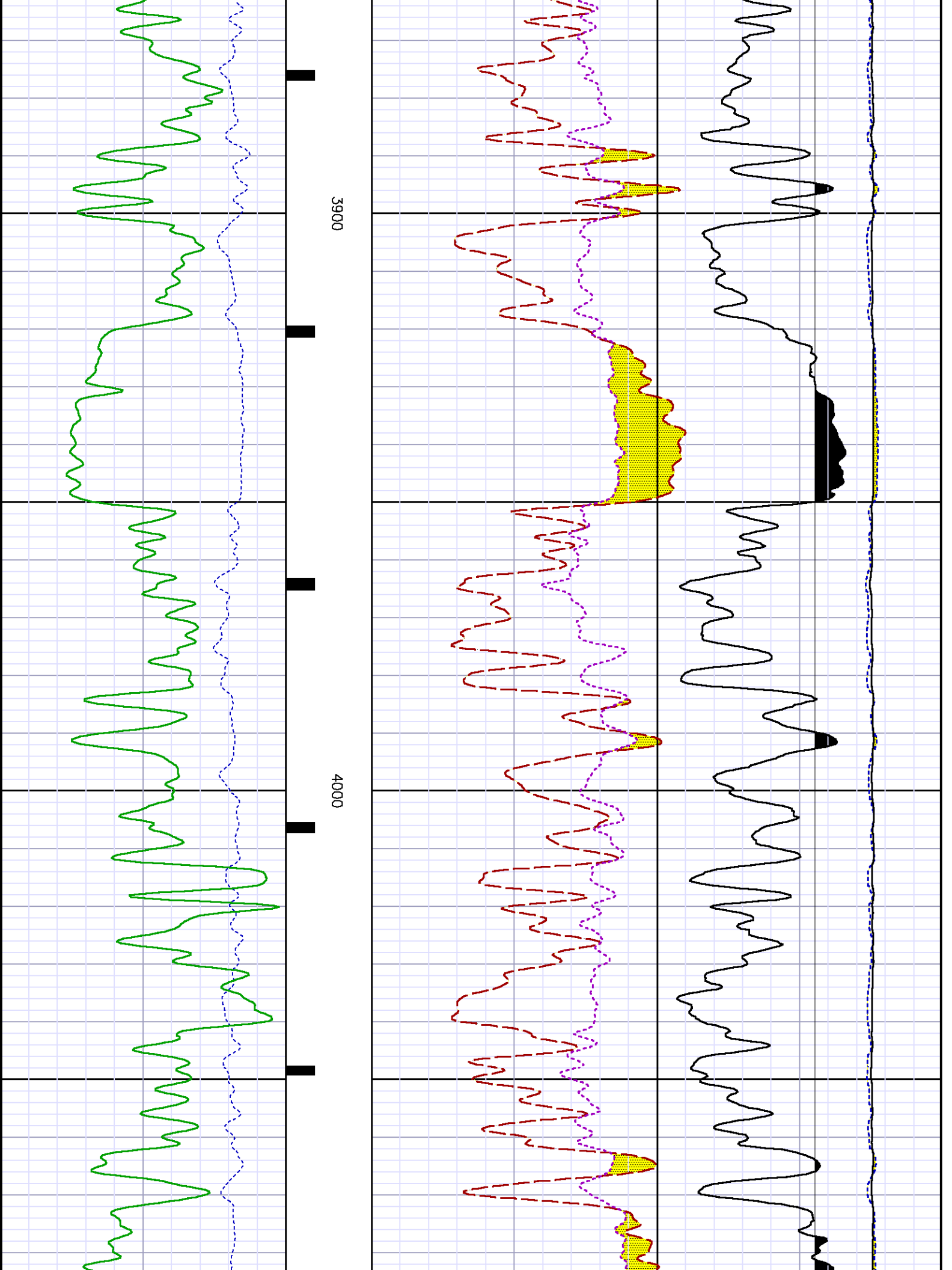


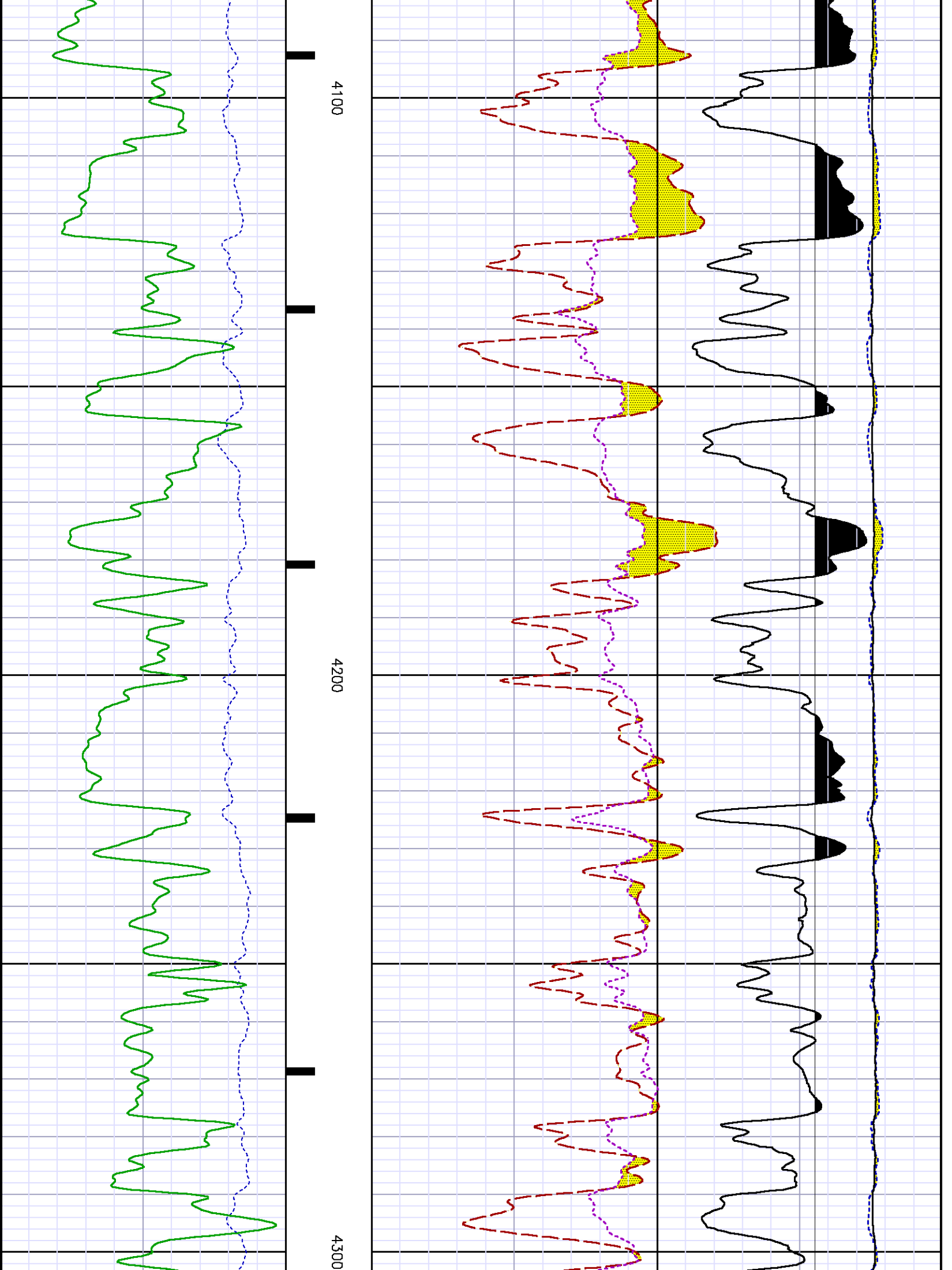
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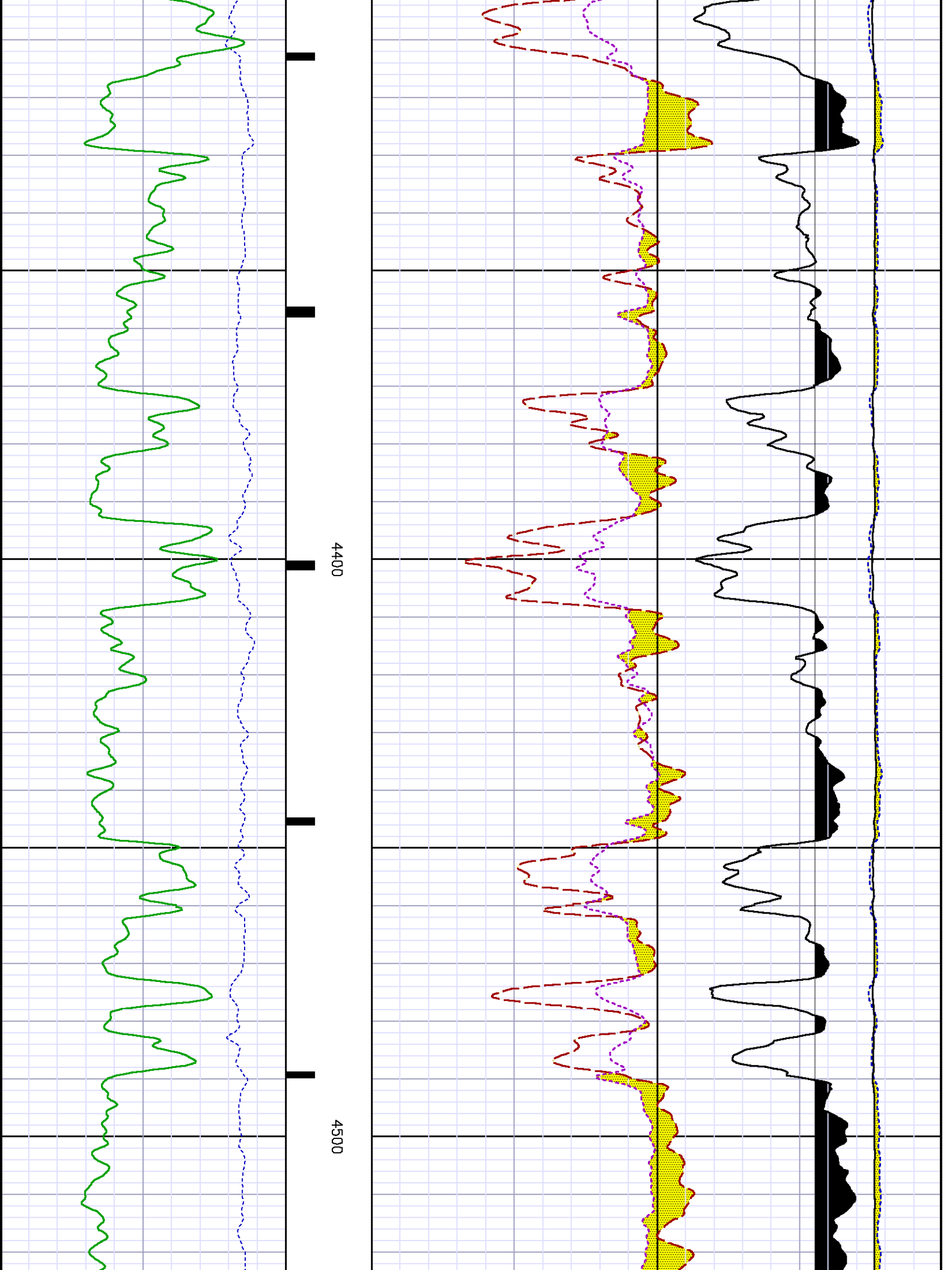


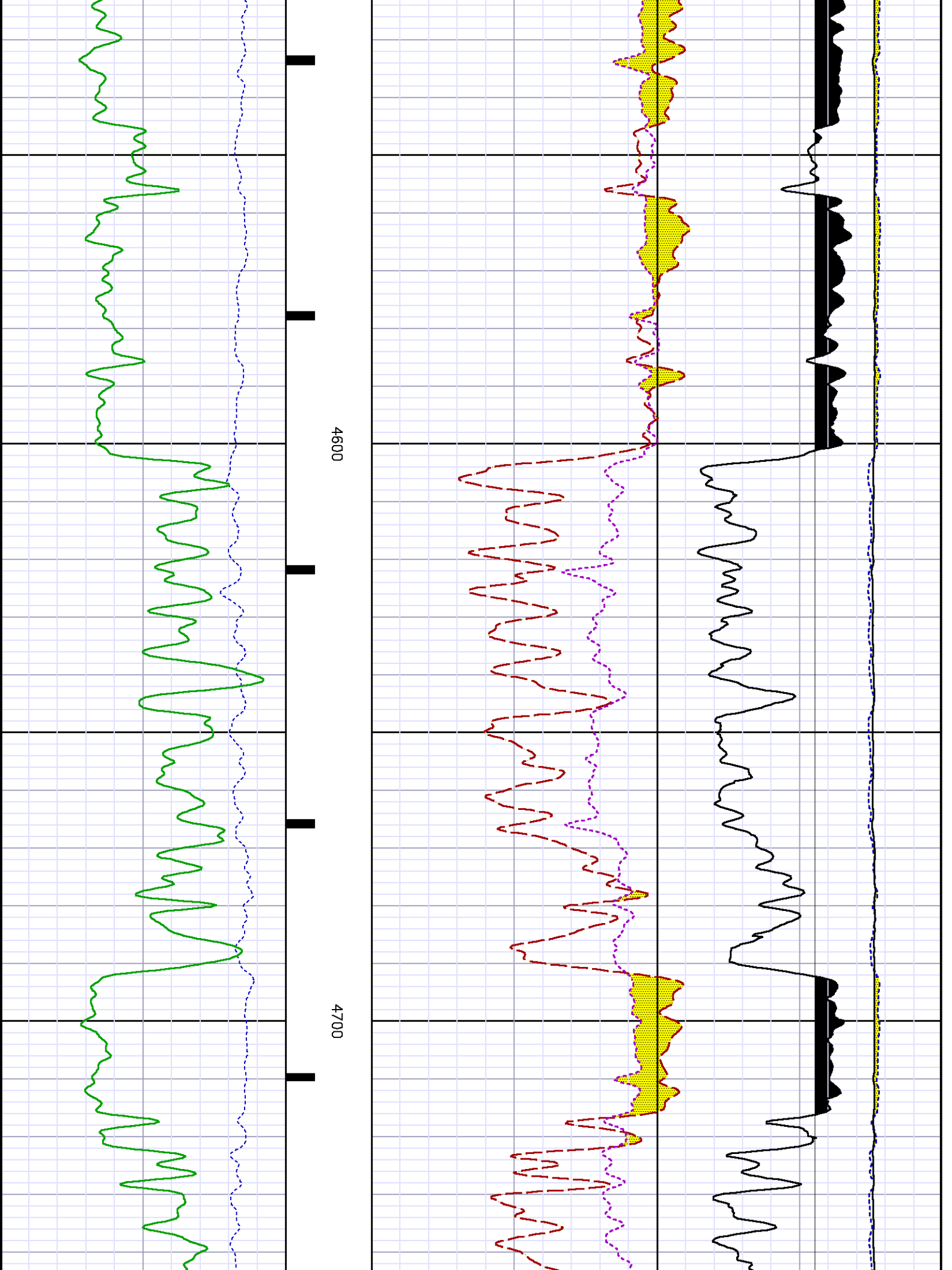


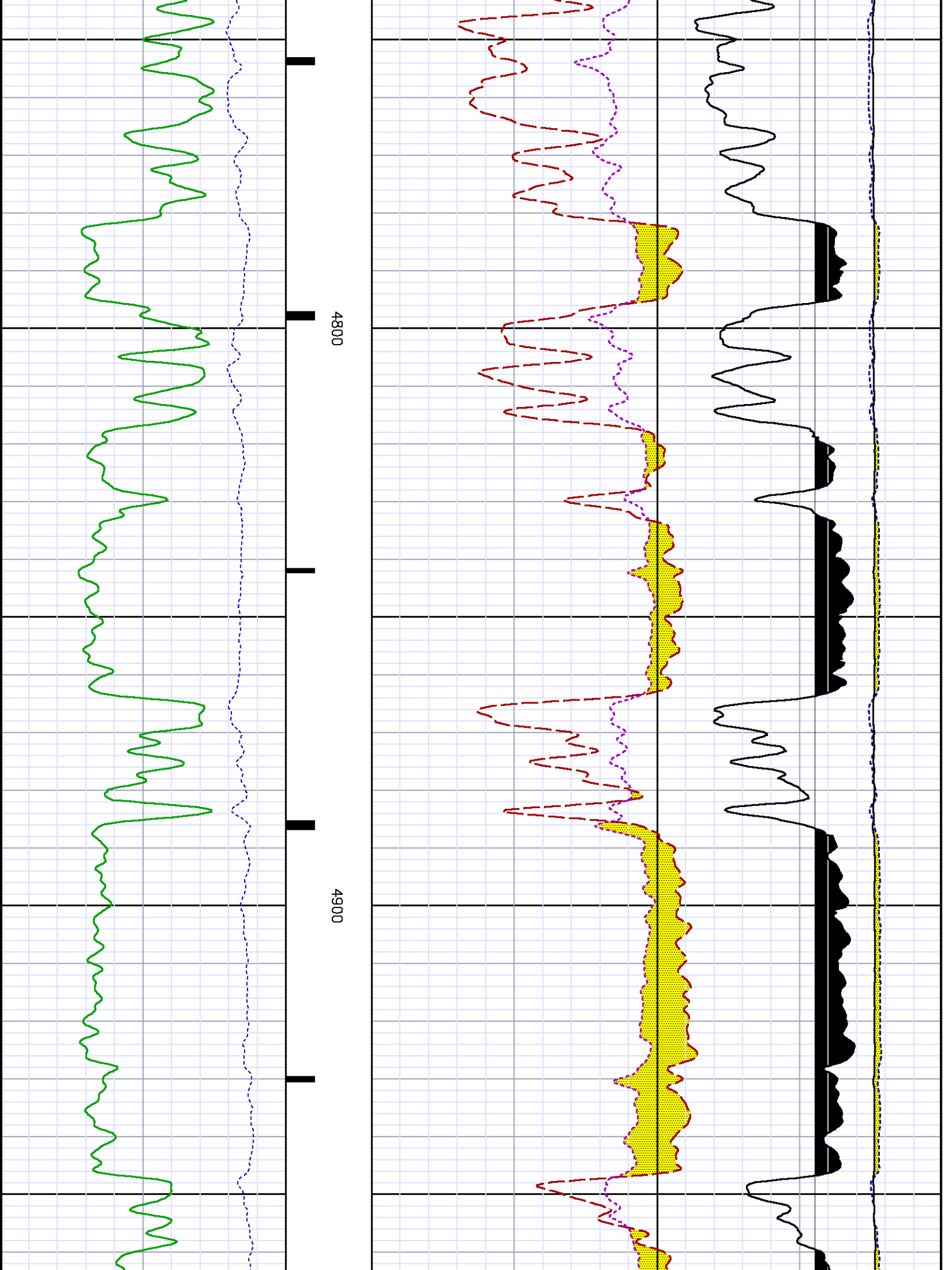


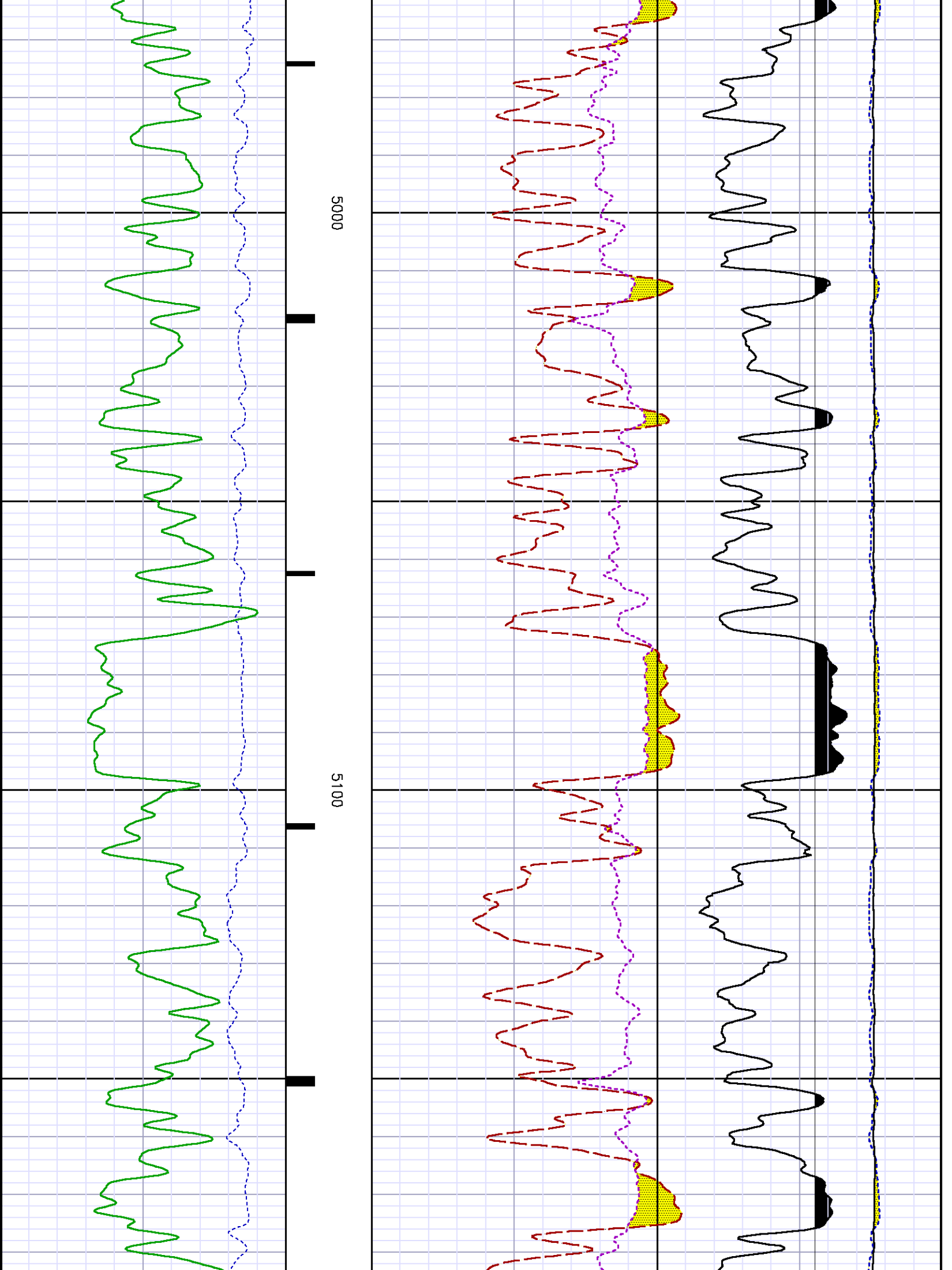


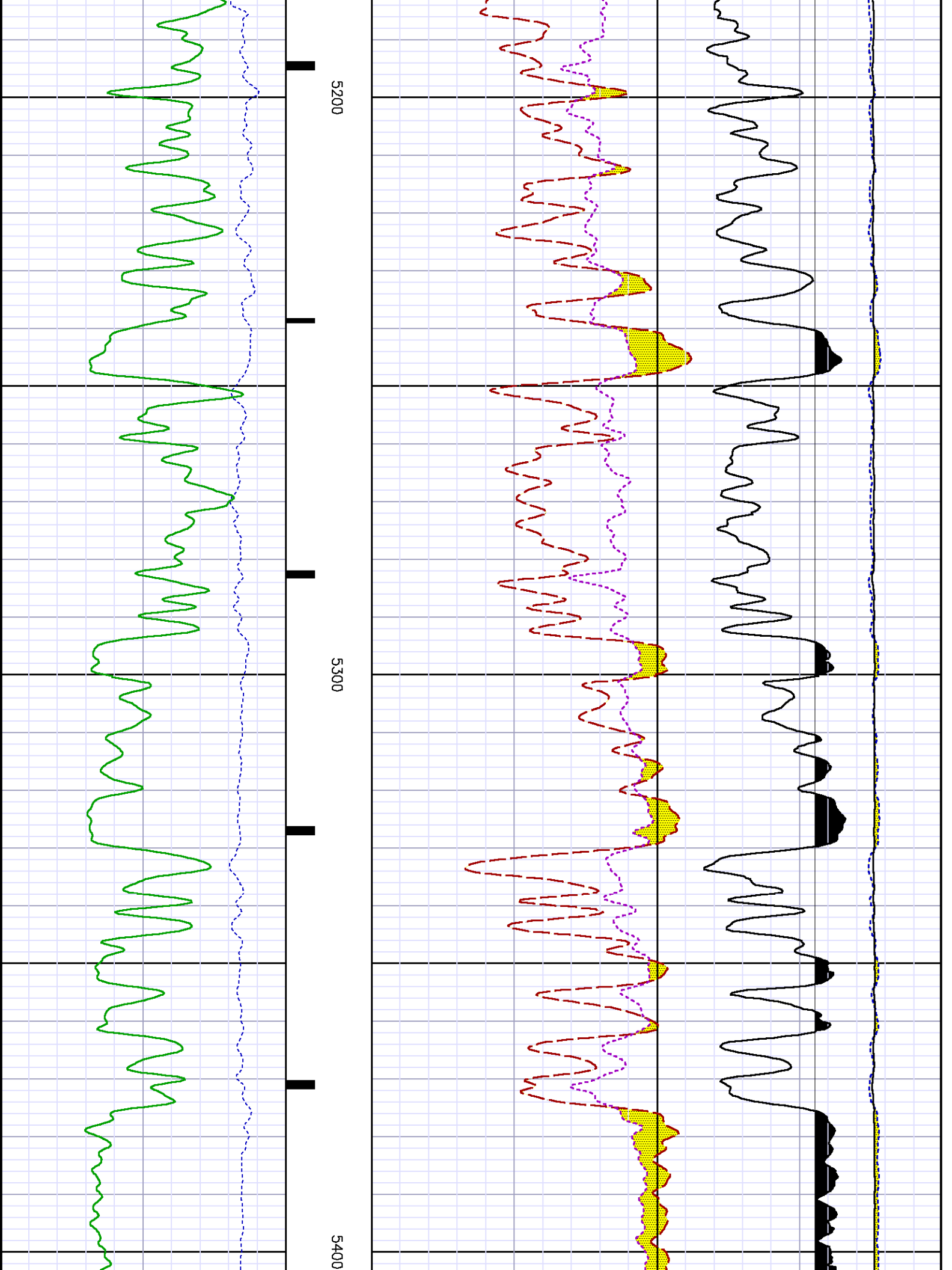


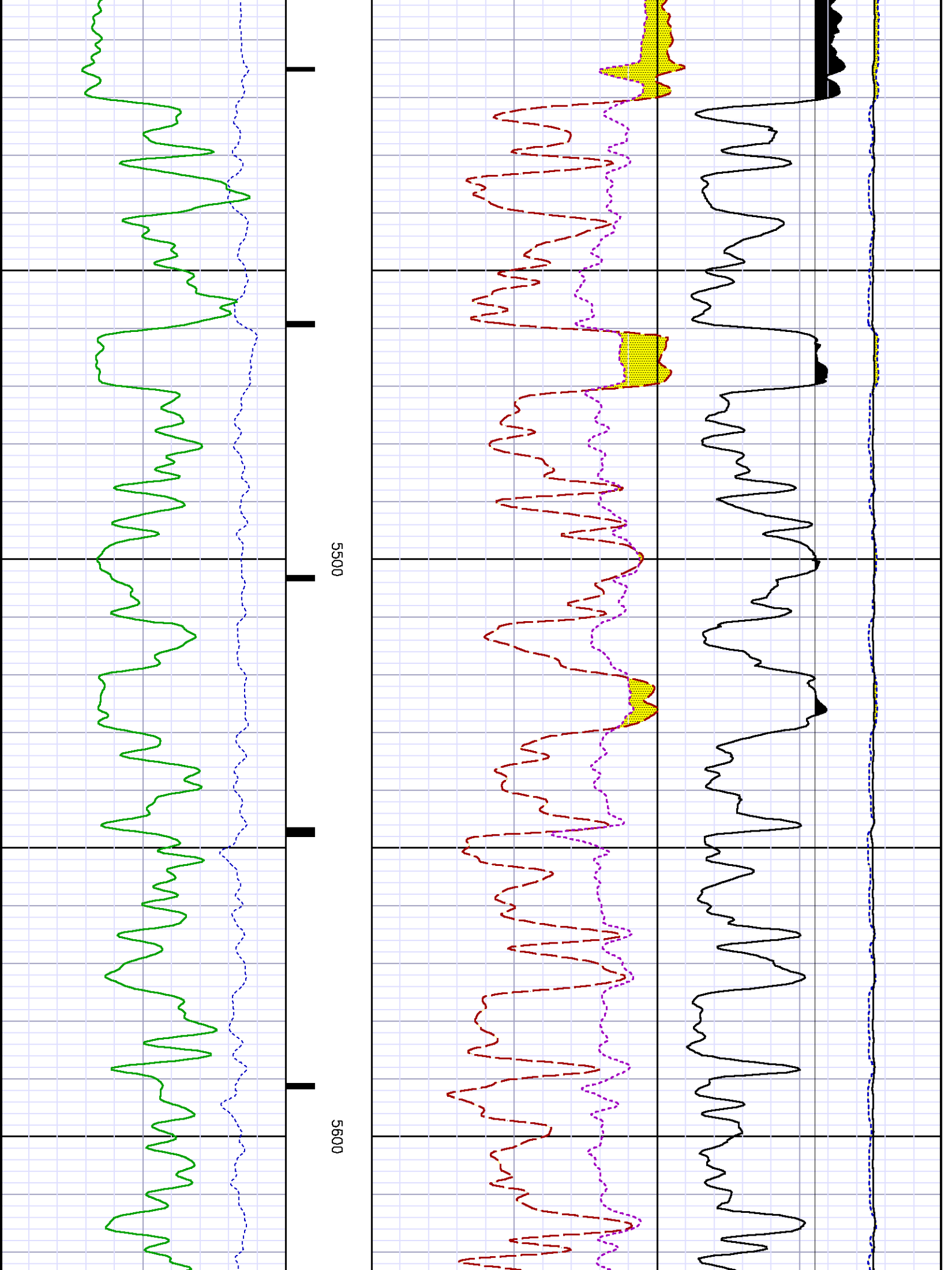


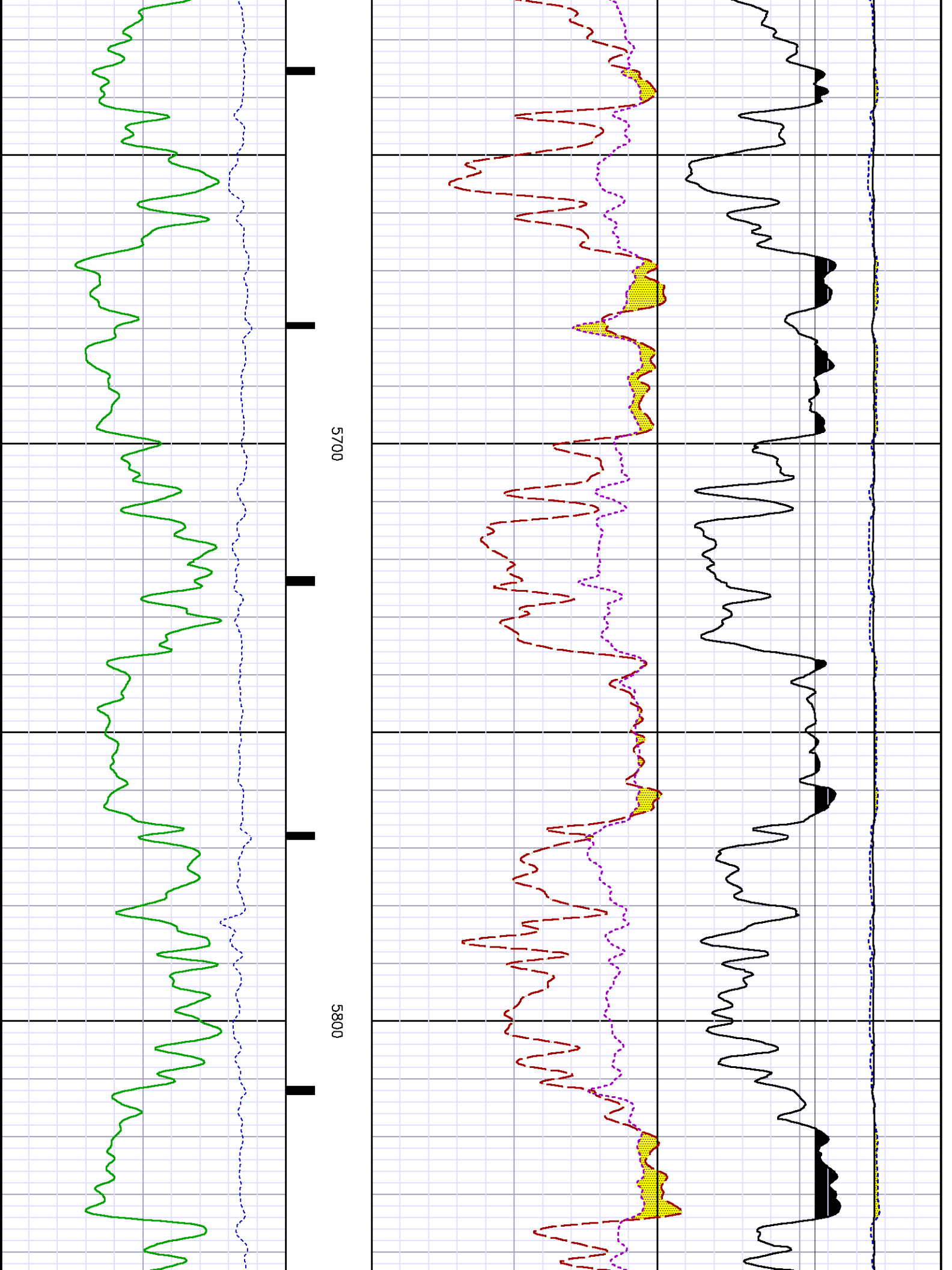


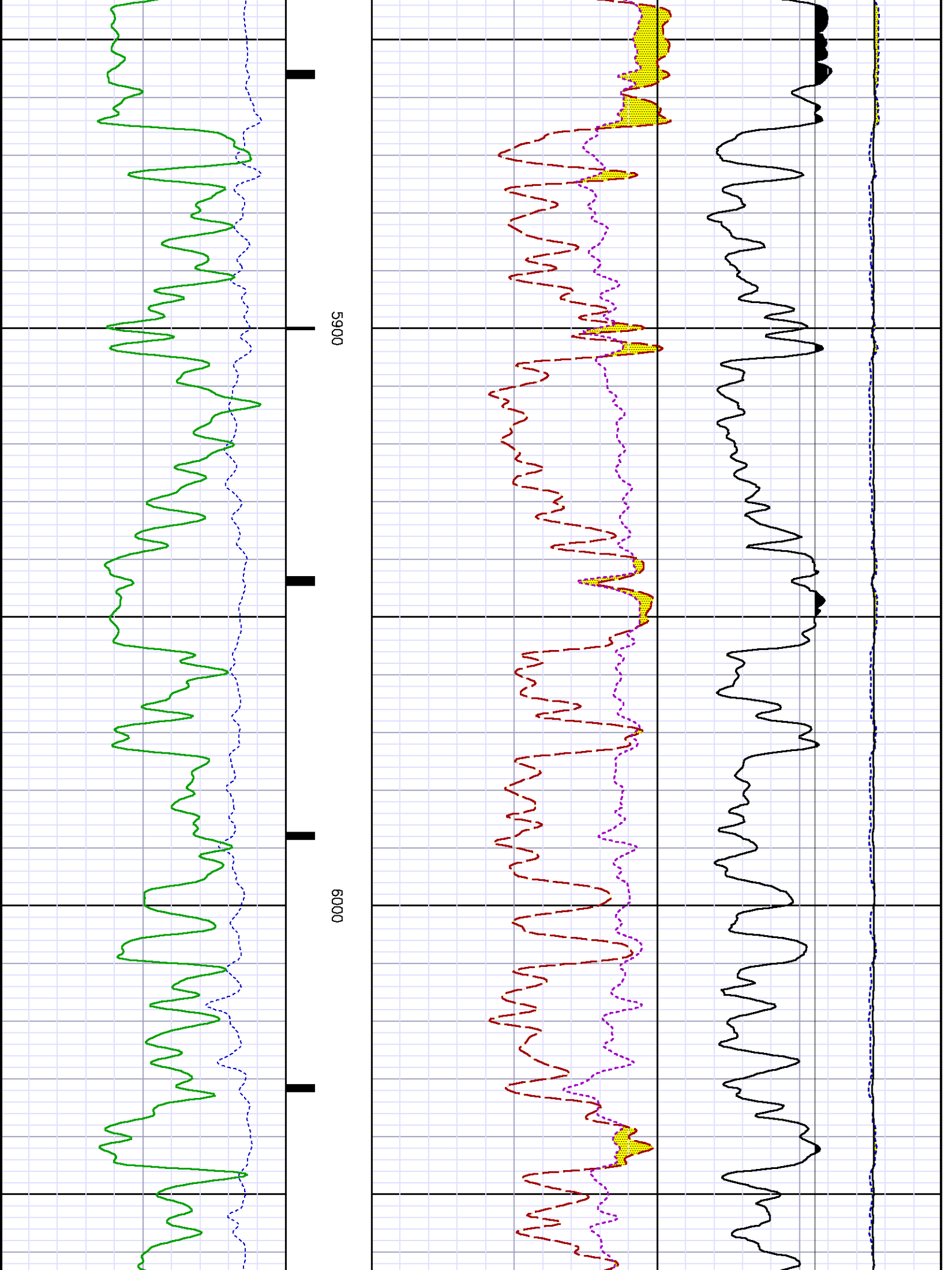


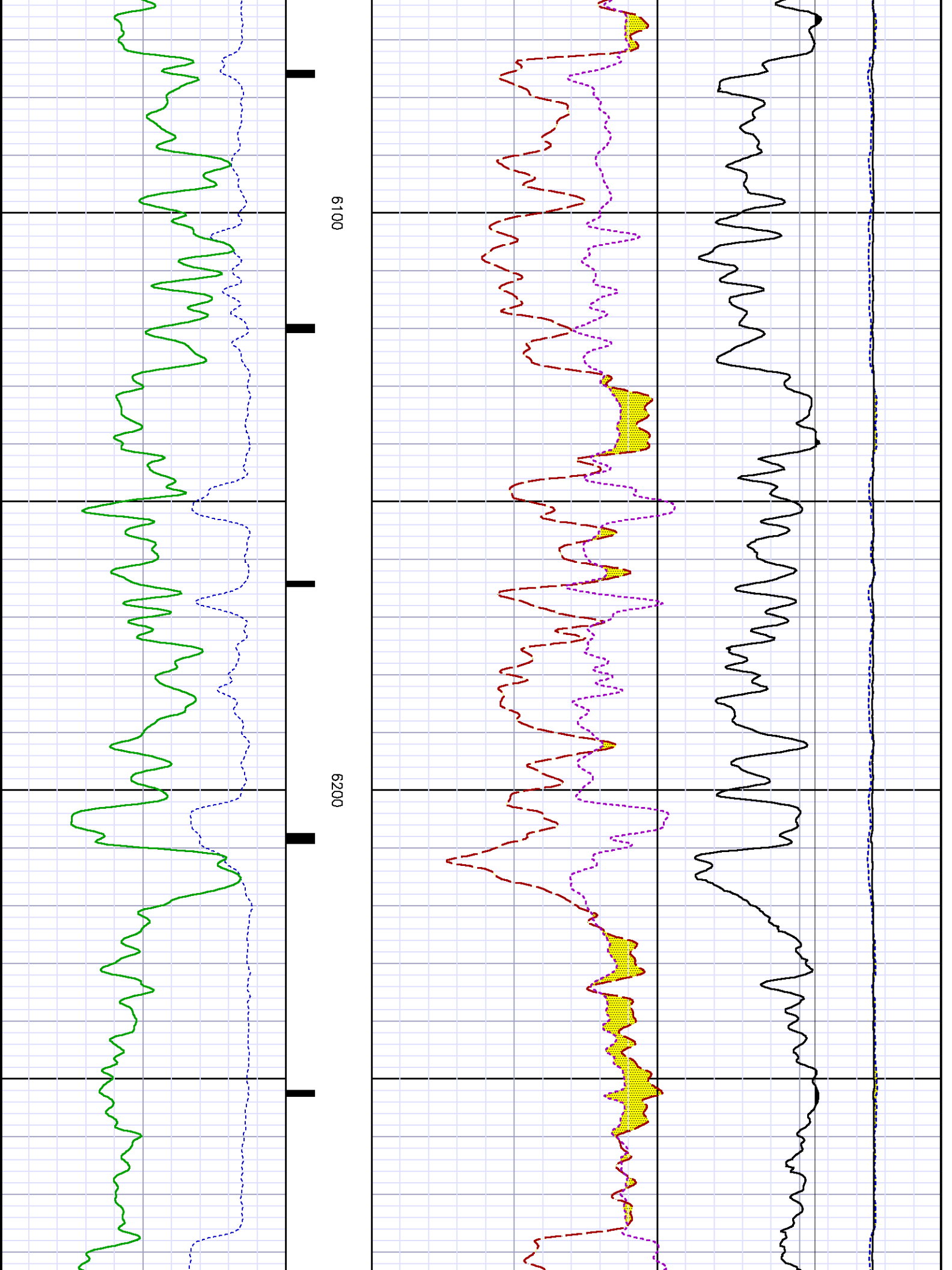


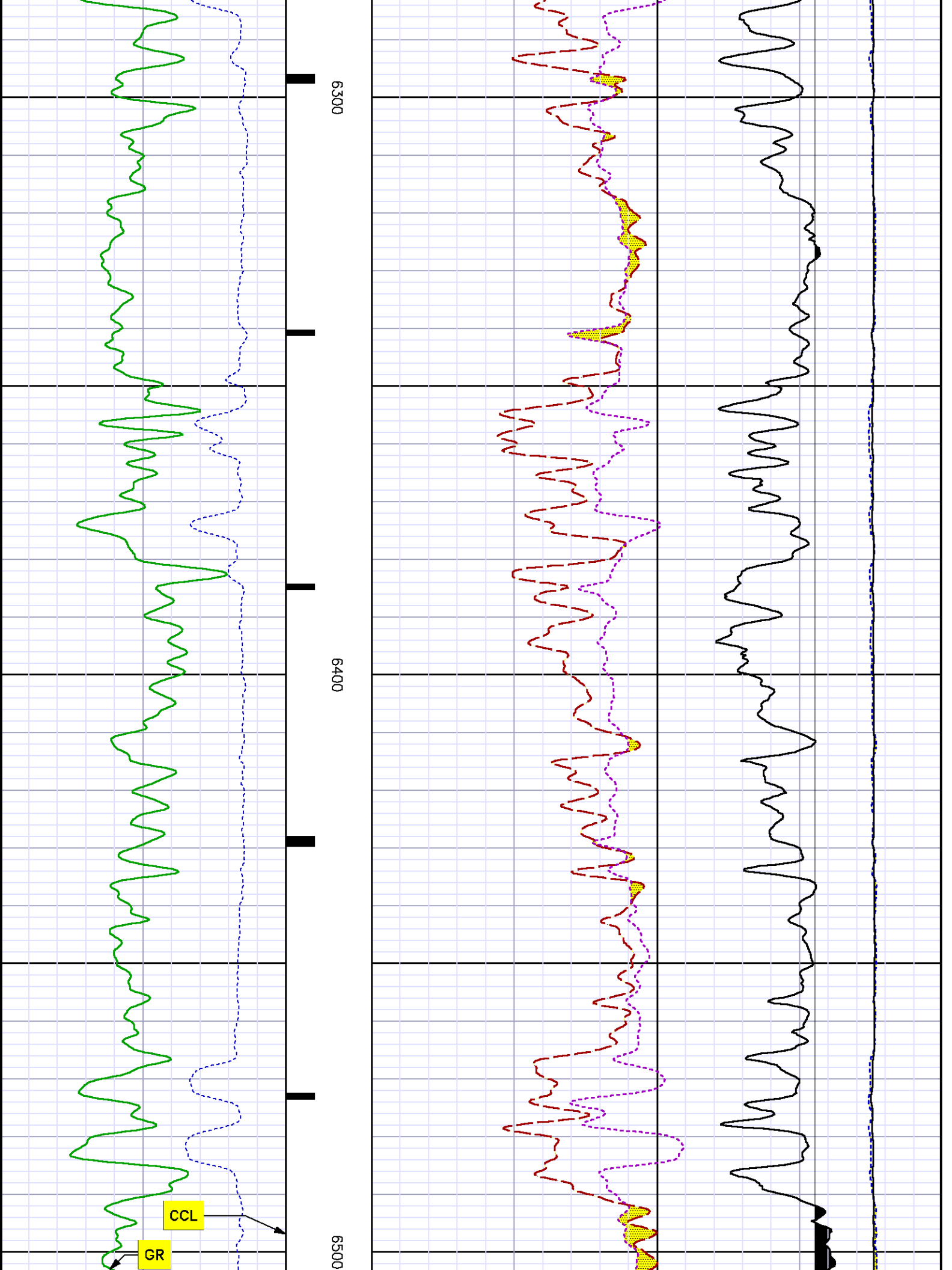


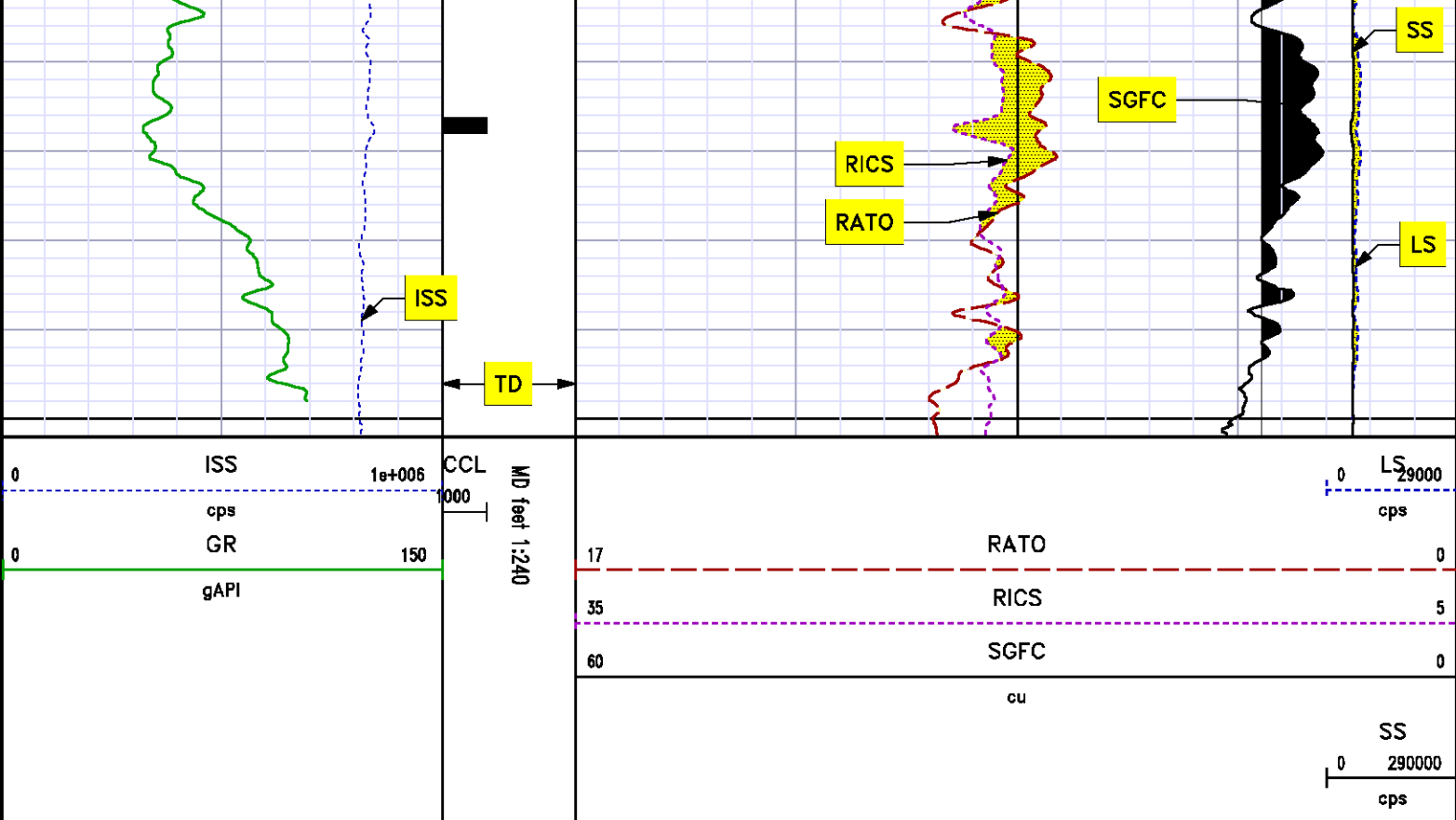












***REPEAT SECTION
PNC 3-D MODE***

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5716.231	6047.700
PNC Porosity	Borehole Size	8.750	inch	5716.231	6047.700
PNC Porosity	Casing Size	4.500	inch	5716.231	6047.700
PNC Porosity	Gas Filled	Non Gas Filled		5716.231	6047.700
PNC Porosity	Matrix	Sandstone		5716.231	6047.700

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248ED	-15.320	FLTM					
8248ED	-13.320	CCL	CHV				
8262XY	-10.189	GR4					
8281XA	-0.662	HVC3Q0	SEQ3	AMA3	AML3	BKX	CXS
		CPT3Q0	CPT3Q2	CPT3Q3	CPT3Q4	ET3	IXS
		MCS3	MCS3Q0	QCAL3	RGN3	RICX	SDA3
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
		QCAL2	RGN2	RICL	RONE23	RTW023	SDA2
		SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
		STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
		CLSR	ILSR	LSR	RICLR		
8281XA	0.000	CPRS	HVC1Q0	MV	SEQ	SEQ1	AMA1
		AMB1	AME1	AMF1	AML1	BKS	CHF1
		CSS	CORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
		CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
		G1	G2	GE1S	GE2S	ISS	MCS1
		MCS1Q0	QA1	QCAL1	QM1	RAT0	RAT013
		RBOR	RGN1	RICS	RIN	RONE	RPOR
		RTW0	RIN13	RONE13	RTW013	SALB	SC1
		SDA1	SDL1	SGA1	SGB1	SGBC	SGE1
		SGF1	SGFC	SGK1	SGL1	SS	SS2
		STA1	PD1S	PD2S	PD3S	MD1S	MD2S
		MD3S	DG1S	DG2S	DG3S	PD1M	PD2M
		PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
		DG3M	MVS	MA	MVM	FILV	IAM
		TA	PVM	PVS	IAS	SSTAT	QPD1
		QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
		QDG2	QDG3	QMA	QTA	QFILV	QMV
		QPV	QIA	DERR	DCNT	QPK1	QSA1
		PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC
		ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
		G2R	ISSR	SSR	SS2R	RATOR	RAT013R
		RBORR	RICSR	RINR	RIN13R	RONER	RPORR
		RTWOR					
SYSTEM	0.000	TEN	TTEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : WPX ENERGY GM 423-34

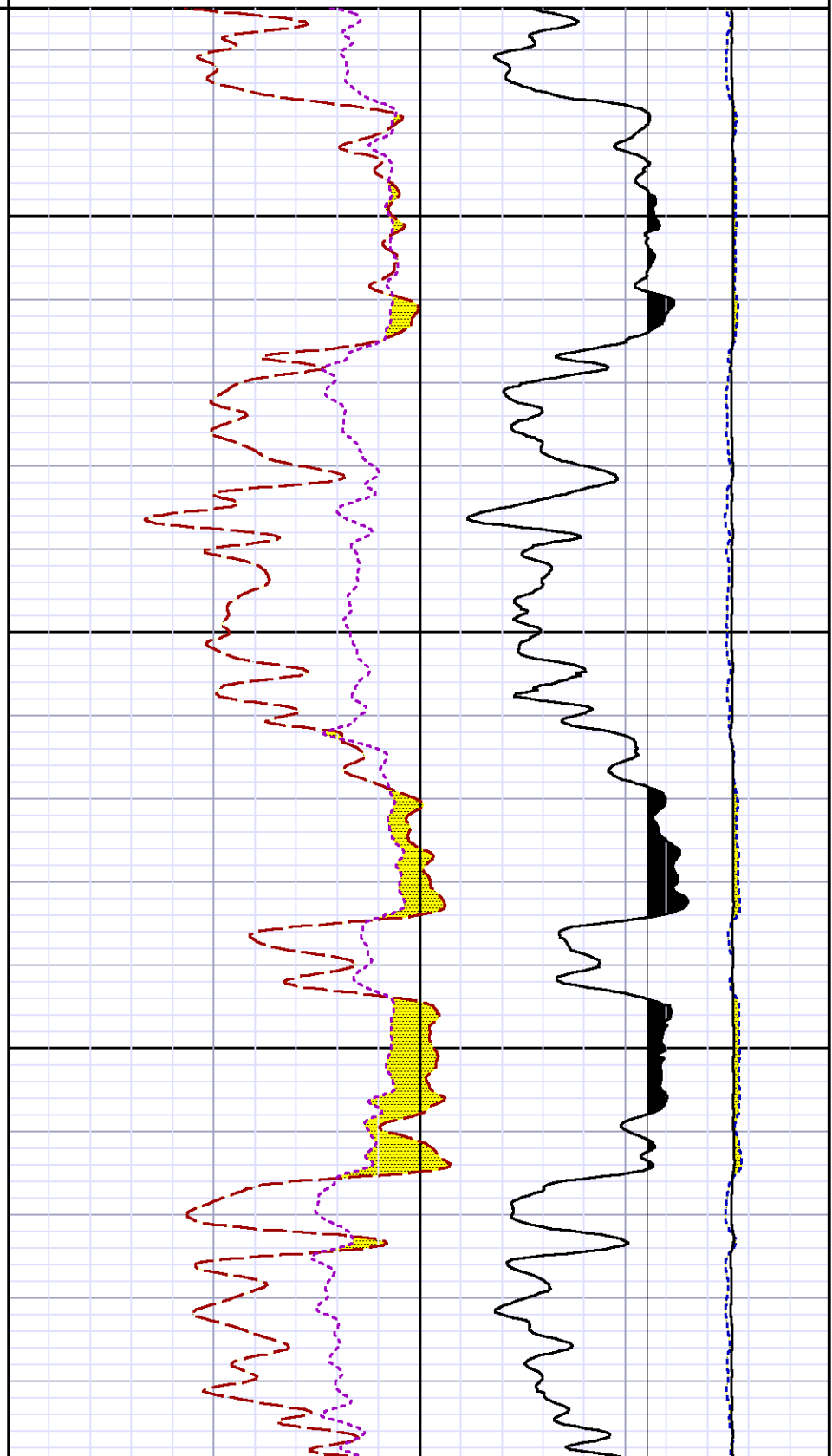
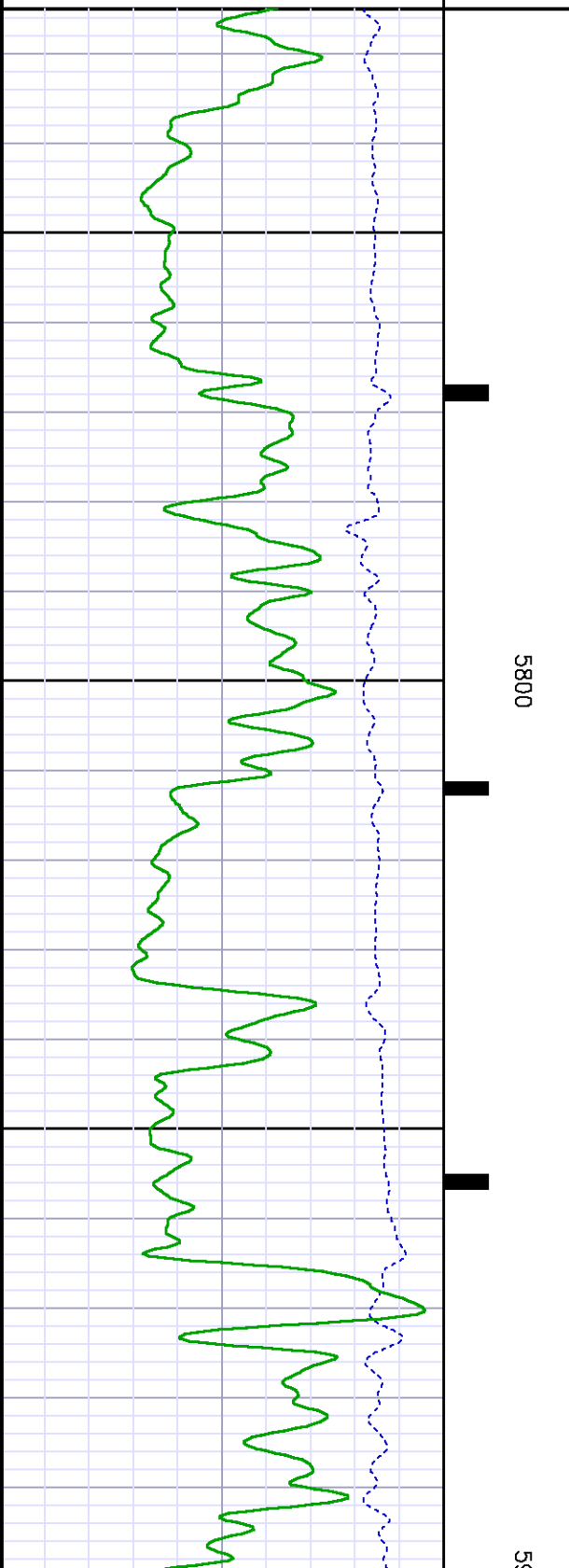
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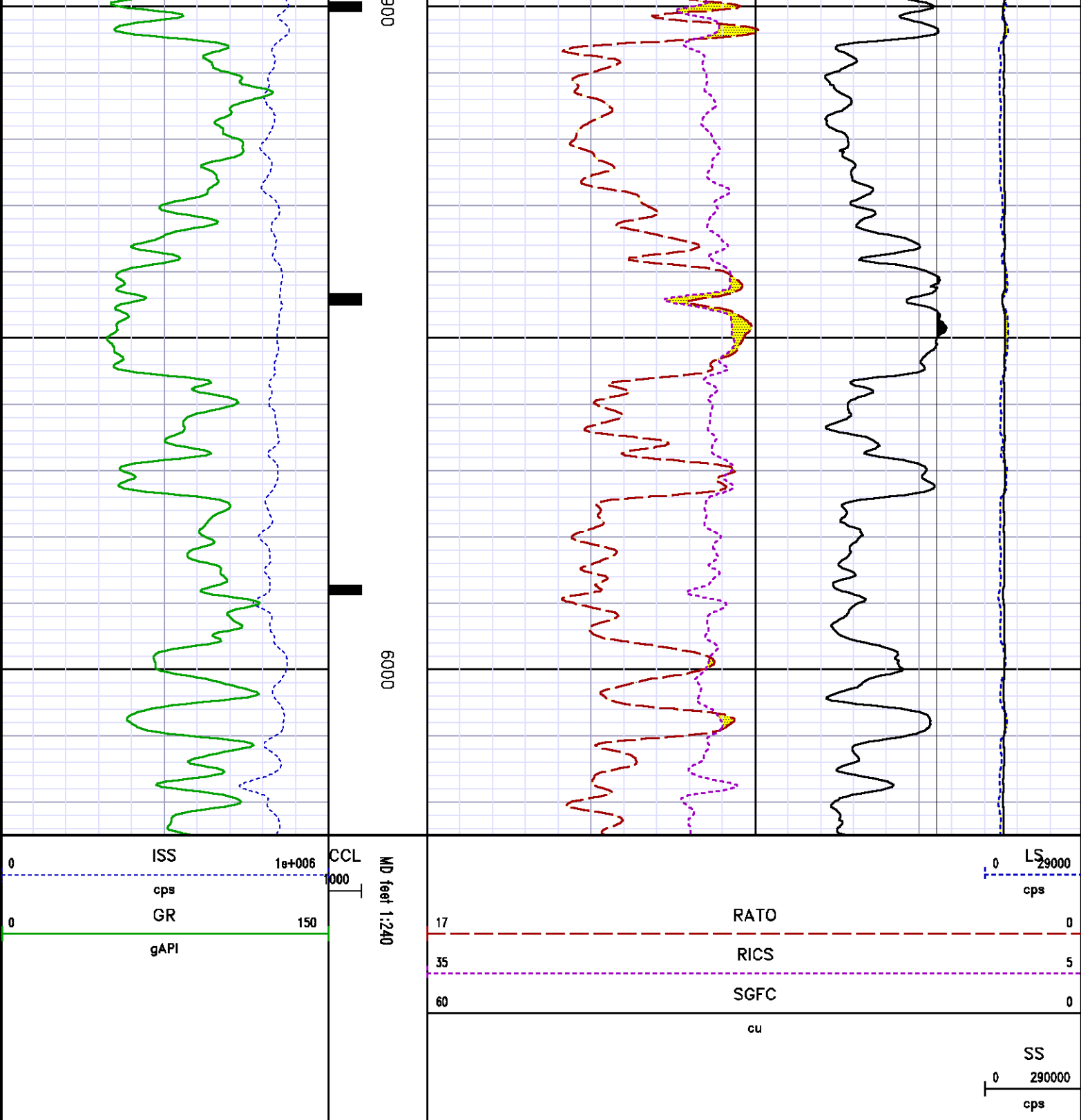
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Interval : 5725.00 - 6025.00 feet UP

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0	GR	150		
	gAPI			

0	LS	29000
	cps	
17	RATO	0
35	RICS	5
60	SGFC	0
	cu	
	SS	290000
	cps	





CALIBRATION SUMMARY

GAMMA RAY (GR4)

Calibration File: C:\case\calver\GR\470J9.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Fri Jul 19 08:23:22 2013	TOOL SERIES:	8262XY	ASSET:	470	SEQ:	J9
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K JIG	119.20	447.27	0.549	65.40	245.40	180.00	

Verification File: C:\case\calver\GR\470J8.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED:	Tue Jun 18 16:10:33 2013	TOOL SERIES:	8262XY	ASSET:	470	SEQ:	J8
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
SHOP JIG	78.56	423.58	0.525	41.25	222.42	181.17	

PNC

Calibration File: C:\case\calver\PNC\555J9.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Sat Jun 29 11:15:36 2013	TOOL SERIES:	8281XA	ASSET:	555	SEQ:	J9
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Calibrator #	Source #
SHOP BARREL	8281AA 11765054

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	815913	123.00	2318.00	2260.00	2219.00	110.72	7.00	0.9868
Interpolated	1300000	141.64	2300.79	2255.03	2213.14			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	815913	6549.55	1056.56	151.17	25.85	0.14	24.31	0.28
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	815913	172283.19	26558.95	89565.24	31886.25	8365.85	54216.74	13379.10
Fit Quality %		0.43	0.21	0.63	0.61	0.37	0.59	0.34

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	815913	1.43	4.74	30.72	15.05	10.71	3.81	4.05
		1.42 1.45	3.55 5.52	22.20 32.70	10.00 15.34	10.05 11.10	3.57 3.05	3.75 4.23

Fit Quality %

1.42	1.43	3.33	3.32	22.20	32.70	10.99	16.34	10.06	11.10	3.37	3.99	3.76	4.22
0.07		0.30		0.35		0.12		0.20		0.20		0.20	

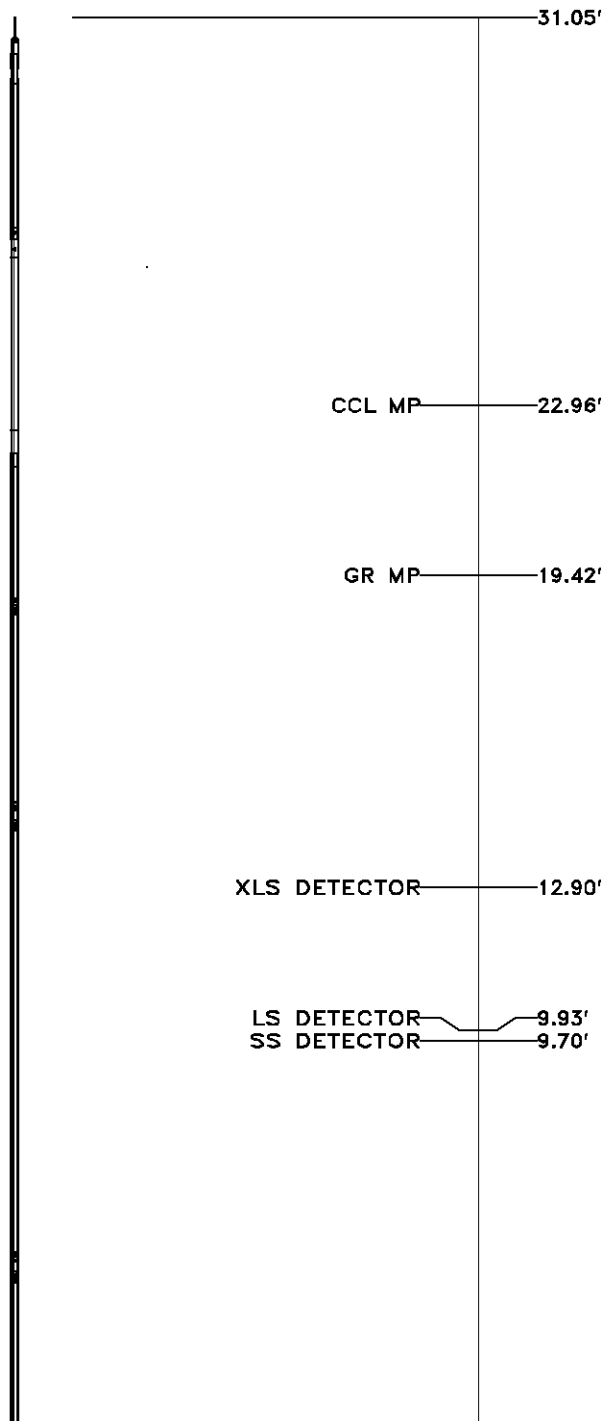
Reduced

1390134	1.43		4.76		30.80		15.11		10.70		3.81		4.05	
	1.42	1.45	4.33	5.52	27.60	32.70	13.70	16.34	10.06	11.10	3.57	3.95	3.76	4.22

TOOL DIAGRAM

OTA SHORT CABLE HEAD	
PCM POWER SUPPLY	
Series	8250EA
Mnemonic	PCM
Diameter	1.70"
Weight	18.00 lb
Length	3.86'
Temp Rating	350.00 °F
TELEMETRY / CCL	
Series	8248EA
Mnemonic	PCM
Diameter	1.70"
Weight	20.00 lb
Length	4.46'
Measure Point	1.00' CCL MP
Temp Rating	350.00 °F
Press Rating	15000.00 PSI
GAMMA RAY	
Series	8262XA
Mnemonic	GR
Diameter	1.70"
Weight	15.00 lb
Length	3.17'

RESERVOIR PERFORMANCE MONITOR	
Series	8281XA
Mnemonic	RPM
Diameter	1.70"
Weight	75.00 lb
Length	18.58'
Measure Point	9.49' SS DETECTOR
Measure Point	9.72' LS DETECTOR
Measure Point	12.69' XLS DETECTOR
Temp Rating	350.00 °F
Press Rating	20000.00 PSI



Total Length: 31.05'
 Total Weight: Not Available
 Max Diameter: 0' 1.70"



Baker Atlas



Company	WPX ENERGY
Well	WPX ENERGY GM 423-34
Field	GRAND VALLEY
County	GARFIELD
State	COLORADO

File No:	CH075719
API No:	05045193090000

Location			
SHL: 1958' FSL X 2182' FWL			
BHL: 1534' FSL X 2405' FEL (NWSE)			
SEC	34	TWP	6S
		RGE	96

Elevations	
KB	5381.5 ft
DF	
GL	5355.5 ft

34-6S-96W
GM 23-34 PAD
NABORS 574